Roger S. Boyd, Asst Dir, Reactor Projects, DRL MAR 2 2 1968

THRU : Charles G. Long, Chief, RPB-3, DRL

Brian K. Grimes, Reactor Project Branch No. 3 Original Signed by Charles G. Long
Division of Reactor Licensing

MARCH 7, 1968 MEETING WITH METROPOLITAN EDISON ON AIRPORT PROXIMITY, DOCKET 50-289

On March 7, 1968, a meeting was held at the "H" Street offices with representatives of Metropolitan Edison prior to discussions with the ACRS on the airport proximity question. Dr. M. Mann, B. Grimes, J. Proctor of the Naval Ordnance Laboratory, and F. Brannigan of the Division of Operational Safety were present for the staff. Representatives of the applicant were as indicated in the attached attendance list.

Mr. J. Proctor of NOL stated that he had been in touch with various people familiar with aircraft design and that several people, including a Mr. Clark at the Bureau of Safety, NTSB, thought that the deceleration value of 20g used in the impact calculation might be low and that a value of about 40g might be appropriate. Mr. Proctor emphasized that the possibility of the higher figure was based solely on off-the-cuff opinion and would have to be investigated further. Persons contacted by Mr. Proctor also thought that an impact velocity greater than 200 knots could be achieved (perhaps as high as 300 knots) in a loss-of-control accident. In addition, it was pointed out that larger aircraft than the 707 considered will be in service in the near future and that higher weights should be considered.

The applicant pointed out that they felt it inconsistent to consider a higher "g" loading with the full weight of the plane because the plane would "come apart" at high "g" loadings and the full weight could therefore not be impinged during a short time period. It was also stated that the calculation had been performed at the weakest point on the containment (the dome apex) and that other parts of the containment would be stronger. Another significant point was that additional calculations have been made which include the damping of the structure and which show that an equivalent static load of 500 psi could be withstood as opposed to the 200 psi calculated with present impact assumptions. Since the load on the containment varies directly with the "g" loading and almost directly with the weight, either of these parameters could be increased to 2.5 times its present value before reaching the containment structural limit.

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We asked about impact on the side of the plant, and the applicant stated that rocking and translational motions had been checked and that these were very small. In addition, the critical reactor components are supported on the base slab and would act independently of the shell.

When questioned on the design basis for other structures, Mr. Roddis said that a 200 psi capability within elastic limits would be used but the same margin as the containment building (to 500 psi) might not be available in these structures.

Mr. Roddis indicated that they had met with the state on March 1 and thought that an agreement would be worked out to allow future authorization for a direct river cooling cycle during periods when the cooling towers might cause a fog problem. The direct cycle would not be proposed at this time but would depend on actual experience during plant operation.

Although Mr. Brannigan was present, the fire aspects of the crash were not discussed because Mr. Roddis wanted our opinion of his current position on remote cold shutdown. He stated that no damage to controls would be assumed during the period of control room evacuation. Dr. Morris later told him that this was similar to our position on other current cases.

A brief staff caucus was held before the ACRS session, and the results of these meetings are noted in Dr. Morris' memo to Mr. Price dated March 11, 1968.

Distribution:
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DATE ▶	3-21-68	3-22-68				

ATTENDANCE LIST

Metropolitan Edison
L. H. Roddis, GPU
G. F. Bierman
J. G. Miller

Consultants
W. Lowe; Pickard and Lowe
J. R. Bachtler; U. of Md.

Babcock & Wilcox
R. Wascher
W. Beisel
J. Malloy

Gilbert Associates
D. Croneburger
C. Bitting
J. Riera
J. Head